

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,951,894 B1
DATED : October 4, 2005
INVENTOR(S) : Nicolson et al.

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 70,

Line 55, change "polymerizing-said" to -- polymerizing said --.

Column 71,

Line 21, change "material and upper" to -- material having upper --.

Column 72,

Line 4, change "of grater than" to -- of greater than --.

Line 4, change " 6.4×10^{-6} " to -- 6.4×10^{-6} --.

Lines 6 and 65, change " 0.4×10^{-6} " to -- 0.4×10^{-6} --.

Column 73,

Line 1, change " 6.4×10^{-6} " to -- 6.4×10^{-6} --.

Column 74,

Line 43, change " 6.4×10^{-6} " to -- 6.4×10^{-6} --.

Line 45, change " 0.4×10^{-6} " to -- 0.4×10^{-6} --.

Column 75,

Line 35, change " 0.4×10^{-6} " to -- 0.4×10^{-6} --.

Line 37, change " 6.4×10^{-6} " to -- 6.4×10^{-6} --.

Column 76,

Lines 3 and 4, change "(b) polymerizing the core in an atmosphere substantially free from oxygen" to -- (b) polymerizing the core formulation in an atmosphere substantially free from oxygen to form a biocompatible lens having a core and surfaces; --.

Line 8, change "autoclaving lens" to -- autoclaving said lens --.

Line 25, change "wherein said ophthalmic lens" to -- wherein said biocompatible lens --.

Column 77,

Line 39, change "worn as extended wear lens that is worn for" to -- worn as an extended wear lens for --.

Line 61, change "continous" to -- continuous --.

Column 78,

Line 9, change "worn as extended wear lens that is worn for" to -- worn as an extended wear lens for --.

Column 79,

Line 12, change " 6.4×10^{-6} " to -- 6.4×10^{-6} --.

Line 14, change " 0.4×10^{-6} " to -- 0.4×10^{-6} --.

Line 47, change "continous" to -- continuous --.

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Column 80,

Line 18, change "absorption" to -- adsorption --.

Line 22, change " 0.4×10^{-6} " to -- 0.4×10^{-6} --.

Line 24, change " 6.4×10^{-6} " to -- 6.4×10^{-6} --.

Line 28, change "continous" to -- continuous --.

Line 49, change "less that about" to -- less than about --.

After line 49, add the following claims:

85. An extended wear contact lens comprising a core polymeric material and inner and outer surfaces that are more hydrophilic than said core polymeric material, said core polymeric material formed from a silicone copolymer which provides a high ion permeability and a high oxygen permeability; said silicone copolymer comprising an oxyperm polymerizable material, and an ionoperm polymerizable material; said core polymeric material having an oxygen permeability equal to or greater than 69 barrers; wherein said extended wear contact lens can be continuously worn for at least fourteen days on a human eye without substantial corneal swelling and without having substantial amounts of lipid adsorption.

86. A siloxane hydrogel contact lens comprising a core polymeric material having hydrophilically modified surfaces that are more hydrophilic than said core material, said hydrogel contact lens being suited to make contact with ocular tissue and ocular tissue and ocular fluids, said core polymeric material being formed from polymerizable materials comprising:

- (a) an oxyperm polymerizable material, and
- (b) an ionoperm polymerizable material,

wherein said lens has an oxygen permeability of at least about 69 barrers and an ion permeability characterized either by an Ionoflux Ion Diffusion Coefficient of greater than about $6.4 \times 10^{-6} \text{ mm}^2/\text{sec}$ or an Ionoton Ion Permeability Coefficient of greater than about $0.4 \times 10^{-6} \text{ cm}^2/\text{min}$ to enable the lens to move on the eye such that corneal health is not substantially harmed and wearer comfort is acceptable during a period of continuous contact with ocular tissue and ocular fluids, wherein said hydrogel contact lens is adapted for at least 14 days of continuous wear on a human eye without substantial corneal swelling and without having substantial amounts of lipid adsorption.

87. A biocompatible contact lens having an oxygen permeability of at least about 69 barrers and an ion permeability characterized by an Ionoton Ion Permeability Coefficient of greater than about $0.4 \times 10^{-6} \text{ cm}^2/\text{min}$, said lens comprising:

- (a) a polmeric core material in the shape of contact lens having an inner and outer surface; and
- (b) said surface of said core material being surface treated to form surfaces that are more hydrophilic than said core material;

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88. A biocompatible sterilizable contact lens having an oxygen permeability of at least about 69 barrers and an ion permeability characterized by an Ionoton Ion Permeability Coefficient of greater than about $0.4 \times 10^{-6} \text{ cm}^2/\text{min}$, said lens comprising:
- (a) a polymeric core material in the shape of contact lens having an inner and outer surface; and
 - (b) said surfaces of said core material being surface modified to form surfaces that are more hydrophilic than said core material;
- said lens having adequate movement on the eye without blinking to promote adequate tear exchange and without producing significant corneal swelling, without having substantial lipid adsorption, and without causing substantial wearer discomfort for a period of continuous contact for 30 days.
89. A contact lens comprising a polymeric material formed from at least:
- (a) an ionoperm polymerizable material comprising at least one of 2-hydroxyethyl methacrylate or N,N-dimethylacrylamide; and
 - (b) an oxyperm polymerizable material;
- wherein said lens has an oxygen transmissibility of at least about 70 barrers/mm and an ion permeability characterized either by (1) an Ionoton ion permeability coefficient of greater than about $0.25 \times 10^{-3} \text{ cm}^2/\text{sec}$, or (2) an Ionoflux diffusion coefficient of greater than about $1.3 \times 10^{-5} \text{ mm}^2/\text{min}$, wherein said ion permeability is measured with respect to sodium ions;
- wherein said lens is suitable for continuous, intimate contact with ocular tissue and ocular fluids while having adequate movement on the eye with blinking to promote adequate tear exchange and without producing significant corneal swelling, without having substantial amounts of lipid adsorption, and without causing substantial wearer discomfort during a period of wear of at least 24 hours.
90. The contact lens of claim 89 wherein said ionoperm polymerizable material comprises both 2-hydroxyethyl methacrylate and N,N-dimethylacrylamide.
91. The contact lens of claim 90 wherein said oxyperm polymerizable material comprises at least one of a siloxane containing macromer or a siloxane containing monomer.
92. The contact lens of claim 91 wherein said polymeric material is further formed from ethylene glycol dimethacrylate.
93. The contact lens of claim 92 wherein said lens is autoclaved without lowering either said oxygen transmissibility or said ion permeability below levels sufficient to maintain good corneal health and on-eye movement.
94. The contact lens of claim 92 wherein said period of wear is at least 4 days.
95. The contact lens of claim 92 wherein said period of wear is at least 7 days.
96. The contact lens of claim 89 further comprising polyvinylpyrrolidone at a surface of said lens.

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97. The contact lens of claim 96 wherein said polyvinylpyrrolidone coats said surface of said lens.
98. The contact lens of claim 89 wherein said period of wear is at least 4 days.
99. The contact lens of claim 89 wherein said period of wear is at least 7 days.
100. The contact lens of claim 89 wherein said lens has an equilibrium water content of about 10 to about 30 weight percent.

Signed and Sealed this

Twenty-first Day of March, 2006

A handwritten signature in black ink, appearing to read "Jon W. Dudas". The signature is stylized with a large, looped initial "J" and a cursive "Dudas".

JON W. DUDAS
Director of the United States Patent and Trademark Office